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[COMMUNICATION]

Lasioglossum blakistoni sp. nov., the Northernmost Representative of the Palaeotropic Subgenus *Ctenonomia* (Insecta, Hymenoptera, Halictidae)

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ABSTRACT—*Lasioglossum* (*Ctenonomia*) *blakistoni* sp. nov. differs from most *Ctenonomia* species by smooth and sparsely punctured mesoscutum. Attaining northward Shimokita Peninsula, the northernmost area of Honshu, this species is regarded as the northernmost species of the large palaeotropic subgenus *Ctenonmia*.

Ctenonomia Cameron is a large palaeotropic subgenus of the enormous halictine genus *Lasioglossum* Curtis [1, 2] and represented in Japan only by *L. kumejimense* (Matsumura et Uchida) confined to S. E. Islands (Amami-Oshima to Iriomote Is.). This paper briefly describes another consubgener from Honshu, leaving details elsewhere.

L. blakistoni sp. nov.

Easily separated from most consubgeners by smooth and very sparsely punctured mesoscutum. *L. callorhinum* (Cockerell, ♀, Thailand) [3] is closest but PP (=punctures) finer (ϕ 12–16 μm), WIS (=width of interspaces=IS)/ϕ PP 0.5–3.0, IS finely shagreened, propodeal dorsum more irregularly ridged, and tergum 1 on disc with finer and sparser PP ($\phi \pm 4$ μm, WIS/ϕ PP 4.0–6.0 or more) (Ebmer, *in litt.*). *L. compressum* (Blüthgen, ♀, Darjiling, Nepal) [4] has similar mesoscutal sculpture but smaller (wing plus tegula 4.5 mm), head shorter (width/length 35:31) and frons above broadly smooth as on mesoscutum. *L. xystonotum* (Vachal, ♀, Sikkim to Sumatra) has mesoscutum sparsely punctured but tessellate and differs from *L. blakistoni* in many other features [2].

Female. Body 7.5 mm, wing plus tegula 6.7 mm. Black; distitarsi, tergal margins, tegula, mandible partly with brownish tint; mesoscutum and terga with bluish enamel luster; veins brown, stigma and subcosta darker. Hairs whitish, often partly yellow-tinted, scutellum with sparse admixture of dark hairs; tergum 1 without basal tomental patches, T_{2-4} with basal fasciae (often hidden on T_4). Head width/length 52:51. Occiput not carinate; face reticuloareolate, each areola $\pm$25 μm wide; supraclypeus with ϕ PP $\pm$25–35 μm, IS imperceptively etched and fairly shining, WIS $\pm$ 1.0 marginally, 2.0–3.0 medially; clypeus above similarly sculptured, below sparser and coarser; clypeal tooth mild. Mesoscutum anteriorly not projecting and not truncate, disc with ϕ PP 25–35 μm, IS very wide (WIS/ϕ PP 2.0–5.0), smooth and shining; mesoscutellum similar, mediolongitudinally depressed. Propodeal dorsum coarsely longitudinally ridged, IS smooth and shining; premarginally crescently delimited; posterolaterally strongly and rectangularly carinate, posterolateral corner distinctly slanting, glabrous and tessellate; posterolateral carina continuous to posterior margin

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but widely interrupted medially. As in other consubgeners, inner hind tibial spur with 3 or 2_{+a} oblique teeth and basal ones longer than width of spur. Tergum 1 with basal slope smooth and shining; disc smooth with fine PP (ϕ 10 μm), WIS$\gg\phi$ PP; IS smooth, only marginally superficially lineolate; T_2 with PP denser and coarser (ϕ 15 μm), IS coriaceous.

Male. Similar to female. Clypeus marginally narrowly yellow. Head width/length=50 : 48. Antenna attaining propodeum; flagellomeres long, F_2 ±2.0 times longer than wide. Mesoscutal and mesoscutellar PP denser. Posterolateral corner of propodeal dorsum more slanting, smooth and shining; posterolateral carina weaker. Sternal margins transverse and simple. Sternal hairs simple and on S_4 not particularly dense.

Specimens examined (all from Honshu, Japan). Holotype ♀ *Aomori Pref.*, Shimokita Peninsula: Zaimoku 20 ix 1967, Y. Nakamura. Paratypes *Aomori Pref.*, Shimokita Pen.: Zaimoku (97♀ 30 v–27 ix, 13♂ 16 vii–27 ix 1967, Y. Nakamura), Ikukoma (9♀ 30 v–4 x, 5♂ 14 ix–4 x 1967, S. Nishimura), Sai (15♀, 6 vi–17 ix, 4♂ 9–17 ix 1968, S. Okada), Akagawa (24♀ 24 v–5 ix, 41♂ 18 ix–5 x 1968, Y. Harada), Yagen (27♀ 8 vi–4 x, 9♂ 22 ix–4 x, 1969, M. Miyoshi), Okuyagen (2♀ 8 vi 1969, K. Kasajima); Tsugaru Distr. (all M. Yamada): Nagasaka (2♀ 19 ix 1987, Zatôishi (1♀ 19 v 1948), Mt. Kudoji (2♀ 7 vi 1981), Dake (1♀ 5 x 1980), Ohkawa (1♂ 22 ix 1985), Hisayoshi (1♀ 23 ix, 1♂ 10 x 1980), Itadome (2♀ 26 v 1984, 25 vi 1981); *Tochigi Pref.*, Nikko (2♂ 10 ix 1984, O. Pellmyr); *Gifu Pref.*, Tokuyama (1♂ 10 x 1976, K. Yamauchi), Takawashi (1♀ 7 x, 1♂ 20 ix 1974, K. Okumura), Hida-Hagiwara (1♂ 17 x 1974, K. Okumura), Akigami (2♀ 8 ix 1978, Y. Morimoto); *Fukui Pref.* (both Y. Haneda) Suwara, Ohno (1♀ 31 v 1981), Nôgo-Hakusan (1♂ 14 ix 1982); *Kyoto Pref.*, Ashû (1♀ 8 vi 1986, T, Kakutani), *Kibune* (1♂ 8 x 1986, M. Kato).

Holotype and 5♀ 5♂ from Shimokita in Entomological Institute, Hokkaido University (Sapporo), 1♀ 1♂ (♀ Zaimoku, 20 ix 1967, ♂ Tokuyama) in Ebmer collection (Linz, Austria), 7♀ 6♂ from Shimokita, 3♀ from Tsugaru and all specimens from prefectures other than Aomori in Sakagami collection (Sapporo), all other Shimokita specimens in Munakata collection (Hakodate) and all other Tsugaru specimens in Yamada collection (Kuroishi).

This species is dedicated to T. Blakiston, a British trader, who stayed in Hakodate (1863–1883) and first pointed out the zoogeographical importance of Tsugaru Strait between Honshu and Hokkaido based on the distribution of higher vertebrates [5]. Unlike mammals and birds the distribution of many insect groups are less affected by the Blakiston's line. Among 48 non-parasitic halictine bees known from Aomori Pref. [6, 8], only three species are unknown from S. Hokkaido: *Lasioglossum* (*Evylaeus*) *japonicum* (Dalla Torre), *L.* (*E.*) *hirashimae* Ebmer et Sakagami and *L.* (*C.*) *blakistoni*. Another species which has been regarded as showing the same chorologic pattern, *Halictus* (*Seladonia*) *aerarius* Smith, was recently recorded from Tôbetsu n. Hakodate (2♀, vi, viii 1987).

Being a palaeotronic group, *Ctenonomia* is only sparsely distributed in the Palaearctics, mainly in the southern marginal areas. The known northernmost limit is S. Kansu from which *L.* (*C.*) *sinicum* was described [7] based on a single male (as *Halictus sinicus*). The exact locality is not given but probably south of 40°N. Thus, *L. blakistoni* is considered the northernmost representative of *Ctenonomia*. The northern coast of Shimokita Peninsula (±41.5°N), where *L. blakistoni* was abundantly collected, latitudinally does not much differ from southernmost Hokkaido. Nevertheless, no specimen of *L. blakistoni* was included among over 29,000 halictine specimens collected there during 1960–1989 by one of us (M.M.). Thus, the northern limit of *L. blakistoni* is probably determined not climatically, and this species is considered one of the rare halictine bees of which chorologic pattern is limited by the Blakiston's line as a geographical barrier. The abundance of *L. blakistoni*, the member of a tropical group, in Shimokita Peninsula under a cool temperate climate is noteworthy. The area also represents the northern limit of the Japanese honeybee *Apis cerana japonica* and is famous as the world northern limit of monkeys and apes by the presence of the natural population of *Macaca fuscata*.

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